FILED

IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

MAR 28 1984

BALLY MANUFACTURING CORPORATION,

H. STUART CUNNINGHAM CLERK, U. S. DISTRICT COURT

Plaintiff,

CIVIL ACTION NO. 78 C 2246

v.

D. GOTTLIEB & CO., WILLIAMS ELECTRONICS, INC. and

Judge John F. Grady

and ROCKWELL INTERNATIONAL CORPORATION,

Defendants.

PLAINTIFF'S MEMORANDUM REGARDING THE COMPUTER PROGRAM LISTING FILED WITH THE PATENT IN SUIT DOCKETED MAR 2 9 1984

## INTRODUCTION

On March 15, 1984, the Court requested a memorandum on the question of "a computer program being part of the patent claims" (Trial Transcript at p. 2008). The Court expressed the issue in the following manner:

"I am not troubled by the idea of patenting a computer program because I believe that can be done. I think there is law to that effect. What I am not clear on is whether you can just simply file a program in computerese and have that regarded as a part of your claim.

Ordinarily I think of claims as something that someone can go to the Patent Office and read and understand, and what makes me ask this question is the thought that maybe we have now entered an era that in order to understand something, you have to go out and hire somebody to read it for you.

Is that indeed the case now?"

(Trial Transcript at p. 2008). Mr. Lynch, counsel for defendants, Gottlieb and Rockwell, took the opportunity to reiterate defendants' position that the computer program is not part of the patent. The purpose of this Memorandum is to discuss these issues, and establish that (1) a computer program may be filed in "computerese", (2) a computer program in a patent specification is relevant when construing "means plus function" claims, such as those in the '441 Reissue Patent, and (3) the computer program filed with the original patent is part of the specification of the '441 Reissue Patent.

## A. A COMPUTER PROGRAM MAY BE FILED IN "COMPUTERESE"

Title 35 U.S.C. §112 requires that a patent specification enable one "skilled in the art" to understand and use the disclosed invention. When an invention involves distinct arts, the specification is adequate if it "enables the adepts of each art, those who have the best chance of being enabled, to carry out the aspect proper to their specialty". Application of Naquin, 398 F.2d 863, 865 (C.C.P.A. 1968) (Exhibit A). In Naquin, a patent application was addressed to the use of a digital computer for mathematically analyzing seismic wave measurements. The application did not describe the computer program in detail. The Examiners ruled that the specification was inadequate because it would not teach one skilled in the

seismic prospecting art how to program a computer. The C.C.P.A. reversed, holding that it is only necessary that an average computer programmer be able to understand the computer-related aspects of the invention. Naquin, supra, 398 F.2d at 866.

The '441 Reissue Patent in suit is directed to the microprocessor-controlled pinball machine defined in the claims in issue. The specification "marries" the old electromechanical pinball game art with the digital logic art in the same way that the application in Naquin "married" the seismic prospecting art with the computer science art. Under Naquin, the Court should consider whether a computer programmer can understand the computer program filed with the application. The following testimony of Dr. Schoeffler, plaintiff's technical expert, established this fact:

The court: Are you saying that a person of ordinary skill in the art or arts that are involved here could read this document along with the Intel manual and understand exactly how this works?

The witness: Yes, sir, for the purpose of understanding the operation of the patent and in particular the critical things in the patent, the noise immunity things and the real time organization of the program.

The typical engineer who studies computer program is accustomed to actually writing this and reading it and interpreting it.

That is correct, sir."

(Trial Transcript at p. 2011). Thus, the program as filed in "computerese" satisfies the "enabling" provisions of §112.

Naquin, supra, 398 F.2d at 866.

B. A COMPUTER PROGRAM IN A PATENT SPECIFICATION IS RELEVANT WHEN CONSTRUING "MEANS PLUS FUNCTION" CLAIMS

The claims in issue include elements which utilize "means plus function" language, as permitted by the last paragraph of 35 U.S.C. §112.

The statute cogently stateshe rule:

"An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, materials, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof".

(35 U.S.C. §112, emphasis added). The quoted portion of the statute permits an element to be set forth as a means for performing a function. When written in that manner, the element comprehends or encompasses that which is shown in the specification to especially support that functional statement and equivalents thereof. Kayton on Patents, 2nd Ed., p. 2-20.

In order to determine whether a means plus function element of a claim reads on an infringing device the Court must determine what means are described in the specification for performing that function. The means plus function element literally reads on the infringing device if the infringing devicecontains means identical to those disclosed in the specification for performing the function, or equivalents thereof.

One of the means plus function elements of representative Claim 45, for example, is "programming means." In order to evaluate the meaning of this clause § 112 requires a

review of the specification to determine what means are disclosed to perform the "programming" function. The means described in the specification included the memory of the microprocessor and the program contained therein. The program contained therein is the program listing which was submtted with the specification. Therefore, the computer program does directly affect the scope of the claims. The fact that the program is written in computerese is irrelevant because the application is directed to and must be understood by a person of ordinary skill in the art. In re

C. THE COMPUTER PROGRAM FILED WITH THE ORIGINAL PATENT IS PART OF THE SPECIFICATION OF THE '441 REISSUE PATENT

Defendants asserted in the PTO and now assert at trial that the computer program is not part of the specification because it is not printed in the <u>text</u> of the printed document. This position is erroneous because (1) it is inconsistent with the past and present practices of the PTO, (2) it is inconsistent with the findings of the Examiner, and (3) the equities favor plaintiff.

As Professor Kayton has testified, the PTO had no formal rules regarding the processing of program listings filed with patent applications when the original patent application and the reissue application were filed. Consequently, the Court must consider, among other things, the past and present practices of the PTO with respect to this matter. Emerson v. Hogg, 8 F. Cas. 628 at 633 (C.C.S.D.N.Y. 1845) (No. 4,440), aff'd. 47 U.S.

(6 How.) 437 (1848), 52 U.S. (11 How.) 587 (1850) (Exhibit B). Reliance on such practices is particularly proper where, as here, there is little or no other authority to aid the Court. In this regard, Professor Kayton has testified that the patent applicants properly acted in accordance with the practices of the PTO at that time. A copy of the relevant pages of his testimony concerning this matter is attached hereto as Exhibit C.

Moreover, consistent with Professor Kayton's testimony, during the reissue proceedings, over the objections of the protestors, the Examiner held that the software listing, under appropriate PTO practices, was part of the original patent. In this regard he stated that:

"The software is available to anyone who reviews the instant application in the same manner that such software appended to the file of Patent No. 4,093,232 was available to the public under the practice at that time."

Thus, the Examiner found that, consistent with the past practice of the PTO, the listing did not have to be printed in the written text of the patent to be part of the specification.

The defendants did not seek the Commissioner's review of the Examiner's ruling in this regard. As an agent of the Commissioner, the Examiner had wide discretion based on his experience and expertise, and his findings should not be disturbed unless a clear abuse of that discretion is manifest.

General Electric Company v. Brenner, 407 F.2d 1258 (D.C. Cir. 1968). As the D.C. Circuit held, when the patent application as filed provides an enabling disclosure under § 112, the entire application is part of the patent as issued under § 154, even though the program is not printed as part of the patent.

Plaintiff followed the practice of the PTO at that time and should not be prejudiced by a situation where there were no formal rules. Emerson v. Hogg, supra, 47 U.S. at 485.

For the foregoing reasons, the Court should hold that the program listing is filed with the original patent application is indeed part of the specification of the Reissue Patent in suit.

March 28, 1984

Philip W. Tone
Keith F. Bode
John H. Mathias, Jr.
Gabrielle L. Sigel
JENNER & BLOCK
One IBM Plaza
Chicago, Illinois 60611
(312) 222-9350

One of the Attorneys for Plaintiff

A. Sidney Katz
Jerold B. Schnayer
Patrick G. Burns
WELSH & KATZ, LTD.
135 S. LaSalle Street
Suite 1625
Chicago, Illinois 60603
(312) 781-9470

## CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing
PLAINTIFF'S MEMORANDUM REGARDING THE COMPUTER PROGRAM LISTING
FILED WITH THE PATENT IN SUIT were served on each of the
following by causing said copies to be hand delivered to:

Melvin M. Goldenberg, Esq. McDougall, Hersh & Scott Suite 1540 135 South LaSalle Street Chicago, Illinois 60603

Howard Arvey, Esq.
Arvey, Hodes, Costello & Burman
180 North LaSalle Street -38th Floor
Chicago, Illinois 60601

Gerson E. Meyers, Esq.
Dressler, Goldsmith, Shore, Sutker
& Milnamow, Ltd.
1800 Prudential Plaza
Chicago, Illinois 60601

John F. Lynch, Esq. c/o Melvin M. Goldenberg, Esq. McDougall, Hersh & Scott Suite 1540 135 South LaSalle Street Chicago, Illinois 60603

this 28th day of March, 1984.

Tatrich Sums
One of the Attorneys for Plaintiff

Cite as 398 F.2d 863 (1968)

considerations lead us to the same conclusion relative to Davison.

So far as we can see, the board's concern about possible extention of monopoly and its refusal to agree with appellant that there will be none by granting a patent on appellant's claims was predicated on its views as to the possible interpretation of "about" and the possibility of overlap in the top limit of appellant's claims and the bottom limit of the claims of Keim and Davison. We believe appellant has taken care of that with great clarity, as a glance at Table I shows. Whatever "about 0.1%" is construed to mean in the Keim and Davison claims, appellant's claims specify "less than" that. In conjunction with those clear words, he uses the same claim expression as Keim and Davison, i. e., "about 0.1%" There can be no overlap. We can see no possible extension of monopoly. Furthermore, as to amount, appellant's claims specify (so far as Keim is concerned) that what is used in practicing his invention shall be "ineffective to impart any appreciable wet strength to the paper."

It can hardly be said that it is an obvious modification of Keim's invention, which is to use the cationic thermosetting resin to produce wet strength, to reduce its amount to the point where it produces no wet strength—perhaps way below—and to use it for an entirely different purpose. Similarly with respect to Davison's use of the resin to flocculate and anchor acrylic compounds used to produce wet and dry strength, it is not obvious to use an amount which is ineffective for those purposes and to use it for a different purpose.

We are not forgetting the "secondary" references and what they teach about retention aids for paper additives, including the use of "similar" compounds to the resin used by appellant. With respect to the secondary references, we are concerned with whether they would suggest modifying the inventions claimed by Keim and Davison, because this is exclusively a double patenting rejection based on those claims and on that propo-

sition. They would not suggest such modification, in our view, because it requires that the Keim or Davison invention first be completely undone by reducing the quantity of resin below the amounts deemed effective for their purposes by Keim and Davison.

The solicitor has repetitively asserted in his brief that the "range of resin proportions recited in the claims have [sic] not been disclosed, alleged or shown to be critical." We do not know exactly what is meant by "critical" in this context but whatever it means we disagree with the proposition. This claim limitation is clearly of great significance. Criticality is usually concerned with the question of unobviousness under section 103, a question not before us.

The decision of the board is reversed. Reversed.

ALMOND, Judge, concurs in the result.



Application of Paul J. NAQUIN, Jr.
Patent Appeal No. 7963.

United States Court of Customs and Patent Appeals. July 3, 1968.

Appeal from decision of Patent Office Board of Appeals affirming final rejection of claims 1-3 of application Serial No. 237,830. The Court of Customs and Patent Appeals, Rich, J., held that record disclosing that the average computer programmer could program computer to make mathematical computations for claimed method of seismic surveying would not support rejection of claims on theory that specification did not set forth method in such terms as to



Was the practice of merely maintaining the p ing available in the file followed in the specific case here for the re-issue patent in suit?

Yes, it was.

15

16

17

18

19

20

21

22

23

24

25

Now, Professor Kayton, I would like to show you a copy A of Plaintiff's Exhibit 436, which was referred to and de-Q. scribed by Dr. Schoeffler and Mr. Frederiksen during their testimony and which is the program listing, which is entitled "Programmed Logic Array Unit Sequence in Mnemonic Code," and which was filed by the applicants during the reissue proceeding in the Patent Office. It is now a part of 1 Plaintiff's Exhibit 1, the re-issue file wrapper, in Volume 12 16 of the 20 volume compendia, Bates number page 1761 13 through 1770. 14

Now, Professor Kayton, are you familiar with this document?

Yes, I have seen it. I have seen it in the file wrapper of the original patent. I have heard Dr. Schoeffler testify about it, and I have heard Mr. Frederiksen testify about it. Is that program listing part of the patent disclosure, even though it is not printed as part of the patent? It definitely is.

MR. LYNCH: Objection, your Honor. I believe that is a question of law. There has been no testimony about this practice, what this alleged practice was or what the founda-